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TITLE: HOT DIP Zn-Mg-Al PLATED STEEL SHEET EXCELLENT IN
DESIGNING PROPERTY
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ABSTRACT:

PROBLEM TO BE SOLVED: To improve the beautifulness of spangle crystals and corrosion resistance in a steel sheet and to increase the plating adhesion in the worked part and the corrosion resistance in the cut part by specifying the balance between the contents of Mg and Al in Zn-Mg-Al plating and providing the lower layer with an Ni plating layer.

SOLUTION: A hot dip plating layer in a steel sheet is composed of, by weight, 1 to 5% Mg, 8 to 30% Al, and the balance Zn with inevitable impurities. As the lower layer of this plating layer, an Ni plating layer is made present by 0.2 to 2 g/m². The contents of Mg and Al in a plating bath are limited, and, in this ranges, spangles in the plating layer are made uniform and beautiful, and, the plated steel sheet particularly excellent in corrosion

resistance can be obtd. As for the plating layer, since Mg and Al are largely contained, the plating layer is slightly hardened, and plating adhesion is slightly deteriorated in the case of being applied with bite working, but, in the case the Ni layer is present as the lower layer, the plating adhesion can be secured. The plating coating weight is preferably controlled to

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